

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method for controlling uplink transmission power in a handover region by a UE (User Equipment) in communication with a Node B using an FCS (Fast Cell Selection) scheme, comprising the steps of:

storing TPC (Transmission Power Control) commands received for a specific duration from a plurality of cells in an active set, if the UE enters the handover region during communication with a current best cell;

selecting a cell among the plurality of cells in the active set as a next best cell using the stored TPC commands;

comparing the TPC commands from a current best cell with the TPC commands from the next best cell for the specific duration, which is defined by a number of time slots counted backward from a point in time at which handover is executed from the current best cell to the next best cell;

~~determining, when a next best cell is selected from the plurality of the cells, a transmission power offset based on a difference between numbers of the TPC commands having different values by comparing TPC commands from the current best cell with TPC commands from the next best cell for the specific duration at a point in time where the best cell is changed from the current best cell to the next best cell; and~~

transmitting initial transmission power for the next best cell at a transmission power level determined considering the transmission power offset.

2. (Currently Amended) The method as claimed in claim 1, wherein the transmission power offset is calculated by

$$P_{\text{offset}} = 2 \times \sum_{\text{duration}_1} (\text{UE}_{\text{down}})$$

~~for the duration from a point in time where the best cell is changed until a time slot just next a time slot indicating that the TPC command indicates a power down command,~~

where P_{offset} represents the transmission power offset, duration_1 represents the specific duration, and UE_{down} represents a number of power-down commands among the TPC commands transmitted by the current best cell during the specific duration.

3. (Cancelled)

4. (Original) The method as claimed in claim 1, wherein the transmission power offset is calculated by

$$P_{\text{offset}} = \sum_{\text{duration}_2} (UTRAN_{\text{up}} - UTRAN_{\text{down}} - (UE_{\text{up}} - UE_{\text{down}}))$$

where P_{offset} represents the transmission power offset, duration_2 represents the specific duration, $UTRAN_{\text{up}}$ represents a number of power-up commands among the TPC commands transmitted from the next best cell to the UE, $UTRAN_{\text{down}}$ represents a number of power-down commands among the TPC commands transmitted from the next best cell to the UE, UE_{up} represents a number of power-up commands among the TPC commands transmitted by the current best cell, and UE_{down} represents a number of power-down commands among the TPC commands transmitted by the current best cell.

5. (Currently Amended) The method as claimed in claim 1, wherein the transmission power offset is set to '0' ~~for if the TPC command transmitted on a time slot before a point in time where the best cell is changed is a power-down command, and the transmission power offset is set to a preset value for if the TPC command transmitted on the time slot before a point in time where the best cell is changed is a power-up command.~~

6-10. (Cancelled)

11. (Currently Amended) An apparatus for controlling uplink transmission power in a handover region by a UE (User Equipment) in communication with a Node B using an FCS (Fast Cell Selection) scheme, comprising:

a power measure and best cell identification part for measuring transmission power of a received common pilot channel (CPICH) signal, and creating best cell maintain/change information by determining whether to maintain a current best cell or change the current best cell to a next best cell;

a demultiplexer for demultiplexing shared control channel (SHCCH) signals received from a plurality of Node Bs in an active set and outputting TPC (Transmission Power Control) commands;

a TPC command memory for storing the TPC commands output from the demultiplexer, received from the plurality of the Node Bs; and

a UE transmission power controller for determining a transmission power ~~control~~ offset based on TPC commands stored for a specific duration ~~from a point in time where the best cell is changed from the current best cell to the next best cell, which is defined by a number of time slots counted backwards~~, upon receipt of best cell change information indicating that the best cell must be changed from the current best cell to the next best cell, ~~output from the power measure and best cell identification part~~, and then compensating initial transmission power for the next best cell based on the determined power control offset.